BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Allocation of Spectrum Below	)	ET Docket No. 94-32
5 GHz Transferred from	)	
Federal Government Use	)	

To the Federal Communications Commission:

REPLY COMMENTS OF
SOUTHWESTERN BELL CORPORATION

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June 30, 1994

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SUMMARY

Southwestern Bell Corporation ("SBC") submits these Reply Comments in response to some 68 sets of Comments that were filed in this docket on June 20, 1994.

In the Notice of Inquiry, the Commission sought information on potential applications for 50 megahertz of spectrum that is proposed to be transferred immediately from the Federal Government to the private sector. Most of the 68 commenting parties in this docket provided little assistance to the Commission in its selection of appropriate allocations of the subject spectrum. Many of the parties complained that the proposed spectrum would actually be of little value in meeting various needs for spectrum. Certain of the parties suggested non-specific uses of the spectrum, most of which were for yet-to-be-developed applications.

In contrast, SBC offered a specific, feasible, and immediate use for one of the bands at issue in this docket, the 2390-2400 MHz band. SBC suggested, and continues to suggest, that the Commission's goal of providing for the introduction of new services and for the enhancement of existing services would be furthered by allocating a portion of the 2390-2400 MHz band exclusively for use by local exchange carriers in providing wireless local loop service for their customers. SBC further recommended that the Commission delay the licensing of that band until it can be paired with the 2300-2310 MHz band, permitting more efficient use of both bands. Of the suggestions provided to the Commission for use of the 2390-2400 MHz band, SBC's proposal not only is the most concrete and feasible but also is by far the most potentially beneficial to the greatest number of customers.

BEFORE THE
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In the Matter of	)	
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Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use	)	ET Docket No. 94-32

To the Commission:

REPLY COMMENTS OF
SOUTHWESTERN BELL CORPORATION

Southwestern Bell Corporation ("SBC") respectfully submits these Reply Comments in the captioned docket. These Reply Comments respond to some 68 sets of Comments that were filed in this docket on June 20, 1994.

The Commission initiated this docket with a Notice of Inquiry released on May 4, 1994. In the NOI, the Commission sought information on potential applications for 50 megahertz of spectrum that is proposed to be transferred immediately from the Federal Government to the private sector as required by the Omnibus Budget Reconciliation Act of 1993. The spectrum identified for immediate reallocation is the 50 megahertz at the bands 2390-2400 MHz, 2402-2417 MHz, and 4660-4685 MHz. The Commission's stated goal in the reallocation of that spectrum is to provide for the introduction of new services and the enhancement of existing services.

Most of the 68 commenting parties provided little assistance to the Commission in selecting allocations of the spectrum that would meet the Commission's goals. Many of the parties complained that the proposed spectrum would actually be of

little value in meeting various needs for spectrum. In contrast, SBC offered a specific proposal for one of the bands, the 2390-2400 MHz band. SBC suggested that the Commission's goals would be furthered by allocating the 2390-2400 MHz band for use by local exchange carriers in providing wireless local loop service for their customers. SBC further recommended that the Commission delay the licensing of that band until it can be paired with the 2300-2310 MHz band,[1] permitting more efficient use of both bands. SBC submits that of the suggestions provided for use of the 2390-2400 MHz band, SBC's proposal not only is the most concrete and feasible but also is by far the most potentially beneficial to the greatest number of customers.

I. ALLOCATION OF PORTIONS OF THE 2390-2400 MHz BAND FOR WIRELESS LOCAL LOOP SERVICE WOULD BE THE MOST APPROPRIATE USE OF THE SPECTRUM AND WOULD BENEFIT CUSTOMERS BY FACILITATING DEPLOYMENT OF THAT TECHNOLOGY.

As SBC stated in its Comments, wireless technology has evolved so that wireless local loop service is competitive both in price and in level of service compared with both copper wire and digital local carrier technology. The wireless local loop would replace the drop wire to the residence or small business, as well as a portion of the telephone distribution plant, with a low power microcellular radio system. The use of wireless local loop technology would permit easier and cheaper rehabilitation of aging

[1]The 2300-2310 MHz band is currently scheduled to be made available to the private sector in January 1996. Advancing that date, however, could accelerate the deployment of wireless local loop service.

local exchange plant, since digging through established yards and streets would not be necessary in order to place new facilities.

The use of wireless local loop technology would benefit all telephone customers by reducing the cost of the telephone infrastructure while providing the capability to offer new services. Wireless local loop technology can reduce installation and maintenance costs, provide bandwidth on demand, and reduce the cost of providing additional telephone access lines to a customer. Before effective deployment of the technology can occur, however, spectrum must be allocated specifically for use with this technology.

Wireless local loop technology provides significant economic benefits with as little as 20 MHz of spectrum; because of economics and frequency propagation characteristics, such spectrum should be below 3 GHz. As SBC showed in its Comments, the 2390-2400 MHz band is appropriate for use in connection with wireless local loop technology. The most effective and efficient deployment of the technology would, however, be enhanced if the licensing of the 2390-2400 MHz band were delayed until it could be paired with the 2300-2310 MHz band. Furthermore, portions of the spectrum in the 2390-2400 MHz band, as well as portions in the 2300-2310 MHz band, should be allocated on an exclusive basis for the use of wireless local loop technology.[2]

As described in this summary of SBC's earlier Comments, the allocation of the 2390-2400 MHz band to wireless local loop technology would achieve the Commission's goal in the reallocation

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[2] See n.7 supra.

of spectrum to the private sector. Wireless local loop service will greatly benefit the general public since it will enable improvements in the provision of local telecommunications services.

II. POINTS MADE BY CERTAIN COMMENTING PARTIES SUPPORT SBC'S SUGGESTED USE OF THE 2390-2400 MHz BAND FOR WIRELESS LOCAL LOOP TECHNOLOGY.

Although none of the other commenting parties specifically suggested use of the 2390-2400 MHz band for wireless local loop technology,[3] certain of the commenting parties made points that support SBC's suggestion of that allocation as an important and appropriate use of the spectrum.

Pacific Bell and Nevada Bell pointed out that the amount of spectrum, in conjunction with its location, being allocated in this docket constrains its uses. They suggested that it would be appropriate to delay allocation of the 2390-2400 MHz band until it can be paired with the 2300-2310 MHz band. They agreed with SBC that such pairing would enable the use of Frequency Division Duplex technology, which is more efficient and effective than Time Division Duplex technology. Telecommunications Industry Association also proposed that the transfer dates of some of the other seven bands identified by NTIA for eventual reallocation be advanced to February 1995. That suggestion is also in line with SBC's proposal with respect to the 2300-2310 MHz band.

Pacific Bell and Nevada Bell stated that the paired bands might be appropriate for public safety communications if they were

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[3]As pointed out above, few of the commenting parties made any specific suggestions for use of any of the spectrum at issue in this docket.

made available for reallocation and licensing simultaneously. SBC described in its Comments the ways that the wireless local loop application can improve public safety communications. The technology can support mobile handsets and provide access to the public switched telephone network ("PSTN") in emergency or disaster situations. In this way, public safety workers on cellular networks, private mobile networks, satellite mobile networks, and the PSTN can all communicate and coordinate their actions.

GTE Service Corporation urged the Commission to ensure that any reallocated spectrum is licensed or authorized for use by a qualified entity. SBC has likewise consistently urged the Commission to allocate spectrum, which is a scarce national resource, in an efficient manner. SBC agrees with GTE that the spectrum should be allocated only to those parties with the technical and financial ability to use that spectrum in an efficient manner that is judged to provide maximum benefit to the public.

Motorola, Inc., stated that the first 50 MHz identified by the NTIA for transfer to the private sector may hold little promise in satisfying anything other than local area systems providing communications services over short ranges. This conclusion of Motorola, which has vast experience in the wireless industry, is consistent with SBC's proposal to allocate the 2390-2400 MHz block for wireless local loops, i.e., local area systems, that provide communications over short ranges. The Telecommunications Industry Association similarly stated that the three bands at issue in this proceeding have shortcomings that preclude their

usefulness in satisfying the needs of the private sector for communications services, especially wide-area advanced mobile communications. The wireless local loop application, which is a short range application by design, would be an appropriate and highly beneficial use of this available spectrum.

Several commenting parties argued that the spectrum at issue in this docket is not suitable for certain applications. For example, Critical Care Telemetry Group stated that none of the spectrum under consideration is appropriate for allocation for essential health care services. Western Multiplex Corporation concluded that the 2390-2400 MHz and the 4660-4685 MHz bands would not be satisfactory for unlicensed use. Several public safety parties[4] indicated that widespread use of microwave ovens[5] makes the 2390-2400 MHz band, as well as the 2402-2417 MHz band, unattractive for public safety communications. The parties who stated that the spectrum is not suitable for certain uses also, in several cases, mentioned several potential non-specific private uses for the spectrum. SBC would point out that these private use

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[4]These parties include American Association of State Highway and Transportation Officials; Association of Public-Safety Communications Officials International, Inc.; California Public-Safety Radio Association; Forestry Conservation Communications Association; International Association of Chiefs of Police; King County, Washington; Major Cities Police Chiefs Association; New York City Transit Police Department; North Carolina Smartnet Users Network; Orange County, California; and Valley Communications Center.

[5]These parties also suggested that the Commission consider tightening the restrictions on microwave oven signal leakage in order to expand the potential for use of spectrum near 2400 MHz. SBC concurs with this proposal. All users of spectrum operating near this band will benefit from tighter restrictions on microwave ovens, and the Commission should pursue this suggestion expeditiously.

suggestions for use of the spectrum are not in accordance with the stated goals of this proceeding; the best allocation of the spectrum would be for the use of the spectrum by carriers providing services that generally benefit the public and not merely a narrow class of private communications users.

III. CERTAIN COMMENTING PARTIES SUGGESTED SPECTRUM USES WITH WHICH SBC DISAGREES.

As stated above, few of the commenting parties suggested specific uses of the spectrum available for allocation in this docket, nor did they suggest uses that will benefit the general public or advance the nation's telecommunications infrastructure goals. Certain commenting parties suggested generic spectrum applications with which SBC particularly disagrees.

Various parties representing amateur radio groups[6] suggested that amateur radio remain at least a secondary use, if not a co-primary use, of the 2390-2400 MHz band. The allocation of 10 MHz at the 2390-2400 MHz band to wireless local loop service is an important, appropriate, and beneficial use of the spectrum that the Commission is considering for reallocation. SBC agrees with the suggestion of these parties that the Commission should continue to make available other suitable spectrum for amateur use. As SBC stated in its Comments, however, the high power and intermittent

[6]These parties include American Radio Relay League, Inc.; Radio Amateur Satellite Corporation; Amateur Radio Council of Arizona; Amateur Television Network; Cactus Radio Club, Inc.; James W. Tittle; Kent Britain; Northern Amateur Relay Council of California, Inc.; Rochester VHF Group; San Bernadino Microwave Society; Southern California Repeater and Remote Base Association; Utah VHF Society; Western States VHF-Microwave Society; and William A. Burns.

nature of amateur operations in the 2390-2400 MHz band preclude the feasibility of the sharing of that spectrum by a wireless local loop system and amateur operators, particularly in high population density areas. SBC continues to urge the Commission to allocate the 2390-2400 MHz band exclusively for the use of wireless local loop service.[7]

Leaco Rural Telephone Cooperative, Inc. argued that the Commission should allocate the entire 50 MHz of spectrum at issue in this docket to the provision of interactive video, voice, and data services in rural areas. If the Commission chooses to allocate spectrum for this purpose, SBC suggests that surely a 40 MHz allocation (the 2402-2417 MHz and the 4660-4685 MHz bands) would be a sufficient initial allocation to serve generally sparsely populated rural areas. Such a 40 MHz allocation is larger than the existing allocation for cellular providers and equals the maximum amount of spectrum to be licensed to any Personal Communications Services ("PCS") provider; such an allocation would be a generous initial allocation for rural services.

American Mobile Satellite Corporation ("AMSC") and the Loral/Qualcomm Partnership addressed the use of the bands at issue for use in conjunction with mobile satellite service ("MSS").

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[7]The amateur radio parties indicated that the 2300-2310 MHz and 2390-2400 MHz bands are largely reserved for future expansion of amateur services. However, there is significant use of the 2304 MHz frequency for weak signal work. If the Commission finds that this incumbent usage should be protected and that buffers should be provided, then SBC suggests that 4 MHz, specifically the 2303-2305 MHz band as well as the 2393-2395 MHz band, be carved out for primary use by amateur operators for weak signal work. The remaining 16 MHz, i.e., the 2300-2303 MHz, the 2305-2310 MHz, the 2390-2393 MHz, and the 2395-2400 MHz bands, should be allocated exclusively for wireless local loop service.

Loral suggested that the Commission should consider these bands for the next generation of MSS. Loral also held the preliminary view that the 2390-2400 MHz band would be of value for MSS uplinks. AMSC disagreed with Loral; it stated that the 2390-2400 MHz band would be of no utility for MSS uplinks. SBC urges the Commission not to hold valuable spectrum in anticipation of future services, such as the next generation of MSS, when parties such as SBC have suggested specific and feasible uses for the spectrum in the near term and when such uses would provide beneficial services to a large portion of the public. Additionally, the Commission has already allocated a significant amount of spectrum to MSS users and intends to pursue additional allocation possibilities in the near future.[8] Finally, SBC would point out the lack of agreement between the two major MSS providers as to the suitability of the 2390-2400 MHz band for MSS. Certainly the public interest would be better served by allocating this spectrum for immediate, appropriate, feasible use than by allocating it for a yet-to-be-decided use.

GEC Plessey Semiconductors argued that the Commission should combine the 2390-2400 MHz and the 2402-2417 MHz bands into a single band to augment Part 15 uses (unlicensed local area networks and local point-to-point data communications). SBC disagrees with that proposal for the following reasons: (1) The Commission has indicated previously that it intends to investigate additional allocations for Part 15 uses in future proceedings;[9]

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[8]Memorandum Opinion and Order, GEN Docket No. 90-314.

[9]Id.

(2) Unlicensed users already have access to the 2402-2417 MHz band; (3) Part 15 users have not indicated specific applications of this spectrum that would benefit the public generally; and (4) A 25 MHz allocation, equal to that currently allocated to cellular providers, is not justified for use by unlicensed users.

American Petroleum Institute stated that some of private industry's extensive spectrum requirements might possibly begin to be met by allocation, on a primary basis, of the 2390-2400 MHz and 2402-2417 MHz bands. The Commission, however, should seek to dedicate spectrum for those users who have a specific, feasible use for the spectrum, not to users who speculate that the allocation of spectrum might possibly be usable to meet their needs. The Commission should also consider whether private usage or carrier usage of spectrum would provide the greatest benefit to the general public. SBC submits that the allocation and use of spectrum by a carrier benefits the general public more fully than the allocation and use of spectrum by a private user. Certainly, the Commission's goal of enhancing an advanced telecommunications infrastructure is better met in this case by allocation of spectrum for wireless local loop service provided by local exchange carriers.

IV. CONCLUSION.

As demonstrated above, SBC was nearly unique among the 68 commenting parties in providing a reasoned proposal and rationale for allocating a portion of the spectrum at issue in this docket in a manner that will facilitate the Commission's goals. SBC did not complain, as many parties did, that the proposed spectrum would actually be of little value in meeting various needs for spectrum.

In contrast, SBC has offered a specific use for one of the bands, the 2390-2400 MHz band, that will add great value to the PSTN for the benefit of the largest segment of the public. SBC urges the Commission to allocate specific portions of the 2390-2400 MHz band for use by local exchange carriers in providing wireless local loop service for their customers. SBC further recommends that the Commission delay the licensing of that band until it can be paired with the 2300-2310 MHz band in order to permit more efficient use of both bands. SBC submits that of the suggestions provided for use of the 2390-2400 MHz band, SBC's proposal not only is the most concrete and feasible but also is by far the most beneficial to the general public.

Respectfully submitted,

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June 30, 1994

CERTIFICATE OF SERVICE

I, Donna J. Cox, hereby certify that copies of the foregoing Reply Comments of Southwestern Bell Corporation have been served by first class United States mail, postage prepaid, on the parties listed on the attached.

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